AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-12 (canceled).

13 (currently amended). A method for determining the presence or amount of an analyte in a test sample, comprising:

forming a mixture of (I) a chimeric enzyme comprising ~~an~~ a starting enzyme and a mimetope, said mimetope including at least one amino acid, said chimeric enzyme having a sequence of said mimetope inserted in said enzyme or replacing at least one amino acid of said enzyme with the proviso that the activity of the chimeric enzyme is modulated upon binding of a binding molecule to the mimetope, (2) a test sample ~~containing said analyte of interest~~, (3) a binding molecule which binds to a mimetope of the chimeric enzyme and modulates the activity of the enzyme, and (4) a substrate upon which the chimeric enzyme catalytically acts; and

detecting the amount of catalysis of the substrate and thereby determining the presence or absence of said analyte of interest.

14 (previously presented). The method of claim 13, wherein the analyte competes with the chimeric enzyme for binding to the binding molecule.

15 (previously presented). The method of claim 13, wherein the analyte is prostate-specific antigen.

16 (previously presented). The method of claim 13, wherein the test sample is serum.

17 (previously presented). The method of claim 13, wherein the test sample contains the analyte.

18 (previously presented). The method of claim 13, wherein the binding molecule is said analyte.

19 (previously presented). The method of claim 13, wherein the binding molecule is an antibody.

20 (currently amended). A method for determining the presence or amount of an analyte in a test sample, comprising:

forming a mixture of (I) a chimeric enzyme comprising ~~an~~ a starting enzyme and a mimetope, said mimetope including at least one amino acid, wherein said chimeric enzyme having a sequence of said mimetope inserted in said enzyme or replacing at least one amino acid of said enzyme with the proviso that the activity of the chimeric enzyme is modulated upon binding of a binding molecule to the mimetope, (2) test sample ~~containing said analyte of interest~~, and (3) a substrate upon which the chimeric enzyme catalytically acts; and

detecting the amount of catalysis of the substrate and thereby determining the presence or absence of said analyte of interest.

21 (previously presented). The method of claim 20, wherein the analyte and substrate contact the enzyme simultaneously.

22 (previously presented). The method of claim 20, wherein the analyte is contacted with the chimeric enzyme prior to contacting with the test sample and the substrate.

23 (previously presented). The method of claim 20, wherein the analyte is an antibody.

24 (previously presented). The method of claim 20, wherein the starting enzyme is β-lactamase.

25 (previously presented). The method of claim 20, wherein the test sample contains the analyte.

26 (previously presented). The method of claim 13, wherein the mimetope comprises any one of a sequence identified from SEQ *ID* NOs. 1-78.

27 (previously presented). The method of claim 20, wherein the mimetope comprises any one of a sequence identified from SEQ *ID* NOs. 1-78.

28 (previously presented). The method of claim 13, wherein the enzymatic activity of the chimeric enzyme in the unbound state is equivalent to that of the starting enzyme.

29 (currently amended). The method of claim 20 ~~13~~, wherein the enzymatic activity of the chimeric enzyme in the unbound state is equivalent to that of the starting enzyme.

30 (currently amended). A method for determining the presence or amount of an analyte in a test sample, comprising:

forming a mixture of (I) a chimeric enzyme comprising β-lactamase and a binding site moiety, said binding site moiety including at least one amino acid, said chimeric enzyme having a sequence of said binding site moiety inserted in said enzyme or replacing at least one amino acid of said enzyme with the proviso that the activity of the chimeric enzyme is modulated upon binding of a binding molecule to the binding site

moiety, (2) a test sample ~~containing said analyte of interest~~, (3) a binding molecule which binds to a binding site moiety of the chimeric enzyme and modulates the activity of the enzyme, and (4) a substrate upon which the chimeric enzyme catalytically acts; and

detecting the amount of catalysis of the substrate and thereby determining the presence or absence of said analyte of interest,

31 (previously presented). The method of claim 30, wherein the analyte competes with the chimeric enzyme for binding to the binding molecule.

32 (previously presented). The method of claim 30, wherein the binding molecule is said analyte.

33 (previously presented). The method of claim 30, wherein the binding molecule is an antibody.

34 (currently amended). The method for determining the presence or amount of an analyte in a test sample, comprising:

forming a mixture of (I) a chimeric enzyme comprising β-lactamase and a binding site moiety, said binding site moiety including at least one amino acid, wherein said chimeric enzyme having a sequence of said binding site moiety inserted in said enzyme or replacing at least one amino acid of <u>said</u> enzyme with the proviso that the activity of the chimeric enzyme is modulated upon binding of a binding molecule to the binding site moiety, (2) test sample ~~containing said analyte of interest~~, and (3) a substrate upon which the chimeric enzyme catalytically acts; and

detecting the amount of catalysis of the substrate and thereby determining the presence or absence of said analyte of interest.

35 (previously presented). The method of claim 34, wherein the analyte is an antibody.

37 (previously presented). The method of claim 30, wherein the enzymatic activity of the chimeric enzyme in the unbound state is equivalent to that of the β-lactamase.

38 (previously presented). The method of claim 34, wherein the enzymatic activity of the chimeric enzyme in the unbound state is equivalent to that of the β-lactamase.